

**ABSTRACT**

Excitation light of a selected wavelength from an excitation monochromator is directed along the long axis of a flow cell containing the sample to be analyzed, generating  
5 fluorescence. An emission monochromator is positioned at right angles to the plane of the excitation monochromator and receives the fluorescence from the flow cell utilizing optical components positioned such that the entrance slit of the emission monochromator is aligned with the long axis of the emission window. The intensity of the output from the flow cell is further maximized by positioning a retro-reflecting mirror at the end of the flow channel to  
10 effectively double the path-length of the excitation beam, and a reflecting surface on the side of the cell opposite the emission window to increase the collection efficiency and thereby increase the sensitivity of the detector.

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